Global Soil Organic Carbon Sequestration Potential Map

GSOCseq

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Technical Workshops. 2020

Soil Organic Carbon Sequestration Maps

Day 4. From vectors to maps

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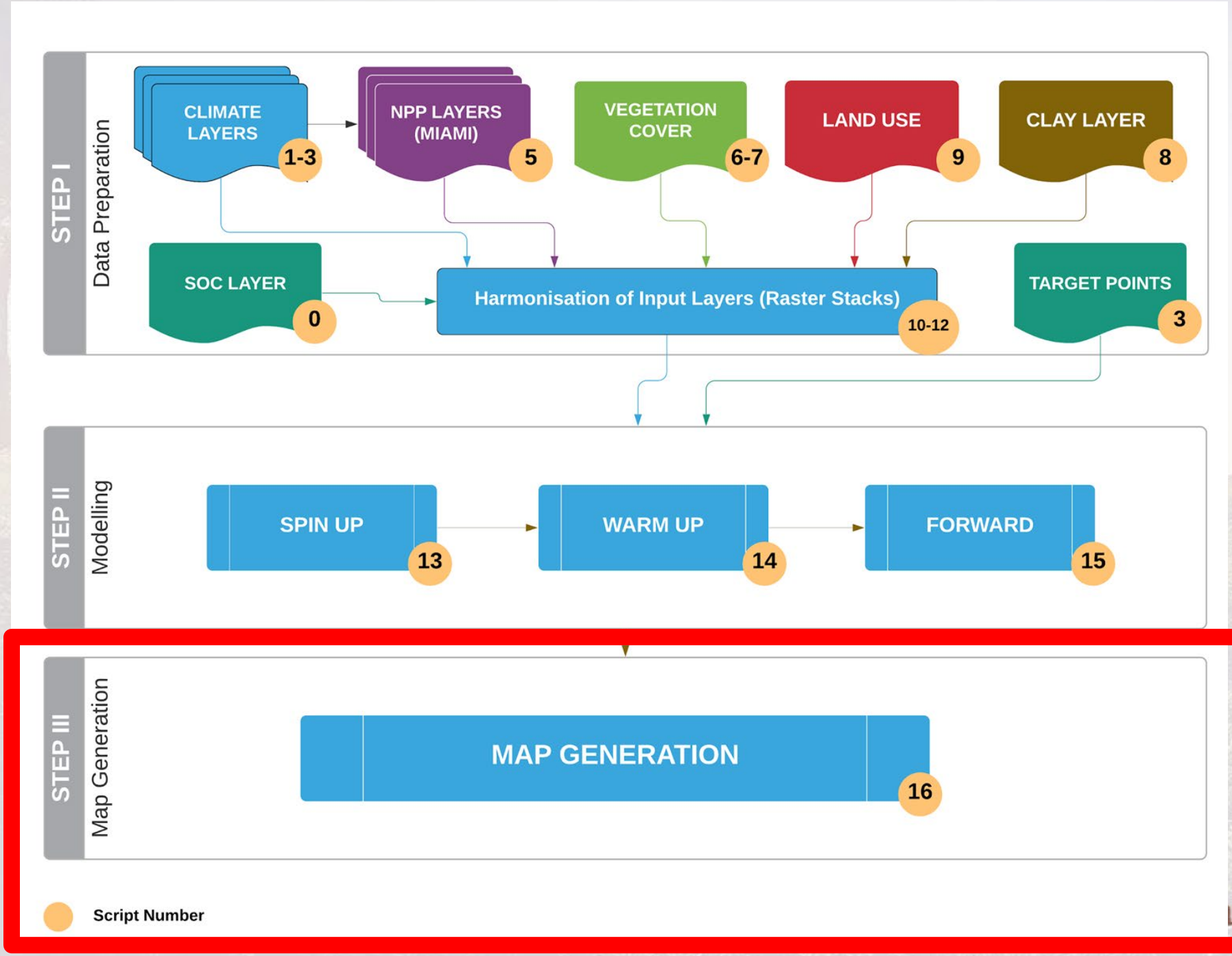
promoting sustainable soil management for all


STEP I
Data Preparation
CLIMATE LAYERS
1-3
NPP LAYERS (MIAMI)
5
VEGETATION COVER
6-7
LAND USE
9
CLAY LAYER
8
SOC LAYER
0
Harmonisation of Input Layers (Raster Stacks)
10-12
TARGET POINTS
3
STEP II
Modelling
SPIN UP
13
WARM UP
14
FORWARD
15
STEP III
Map Generation
MAP GENERATION
16
Script Number

FROM POINTS TO RASTERS

SCRIPT NUMBER 16. POINTS TO RASTER

Inputs:

COUNTRY_POLYGON.SHP (ROI)

FOWARD_BAU_3E_20YEARS_[code country].shp
(from script number 15)

LAYER :
SOC_MAP_[country_code].tif
(from script number 10)

Outputs :

3 raster scenarios (low , médium and high)
1 raster BAU (bussines as usual)
4 absolute rates (Scenario – 2018 SOC)/20
4 absolute differences (Scenario – 2018 SOC)
3 relative rates (Scenario – BAU)/20
3 relative differences (Scenario – BAU)
Uncertainties maps (BAU, SSM, SOC2018, UNC for absolute and relative rates)

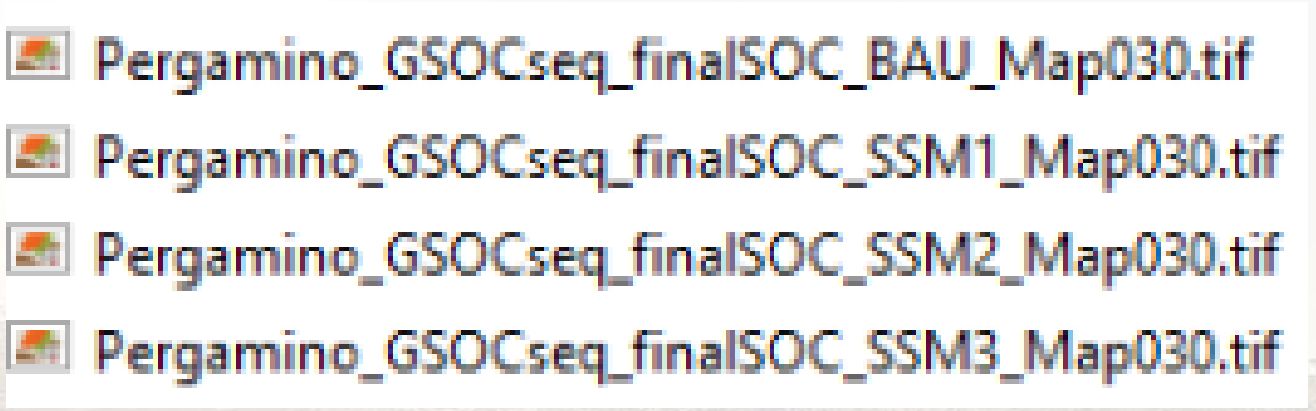
From points to rasters

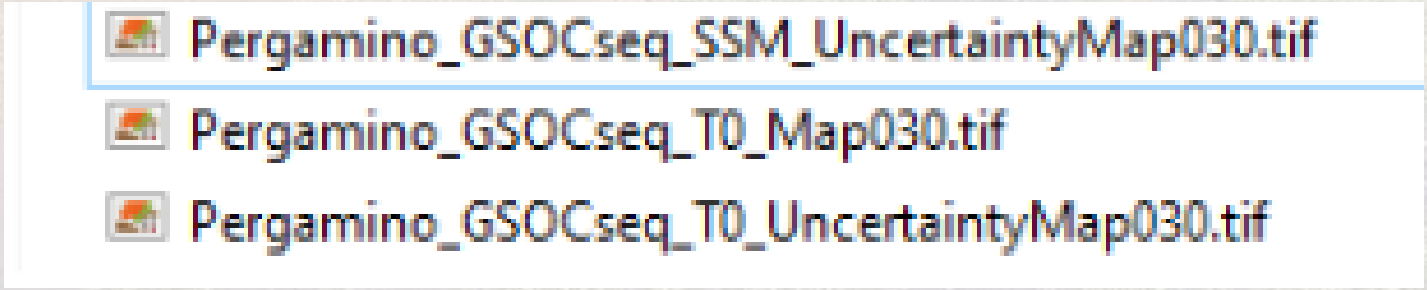
Objective:
Modeling runs will generate a ´point´ vector file (1 point per pixel) , with data related to SSM and BAU scenarios, and uncertainties (simplified method).
This information is saved as a shapefile…

This last step will transform this points to raster file, one for each required map

Products

Final SOC stocks (tC/ha)
&
Uncertainties (%)

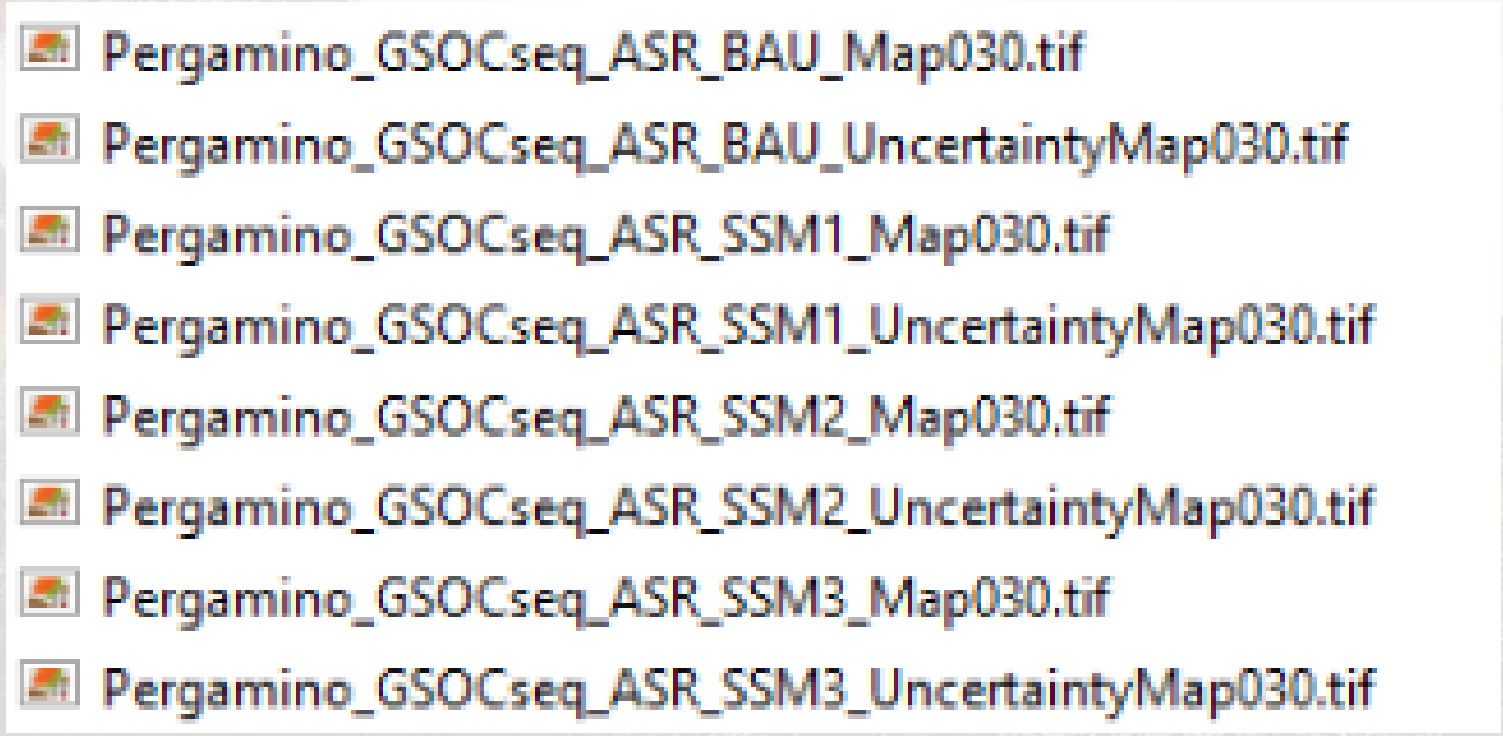




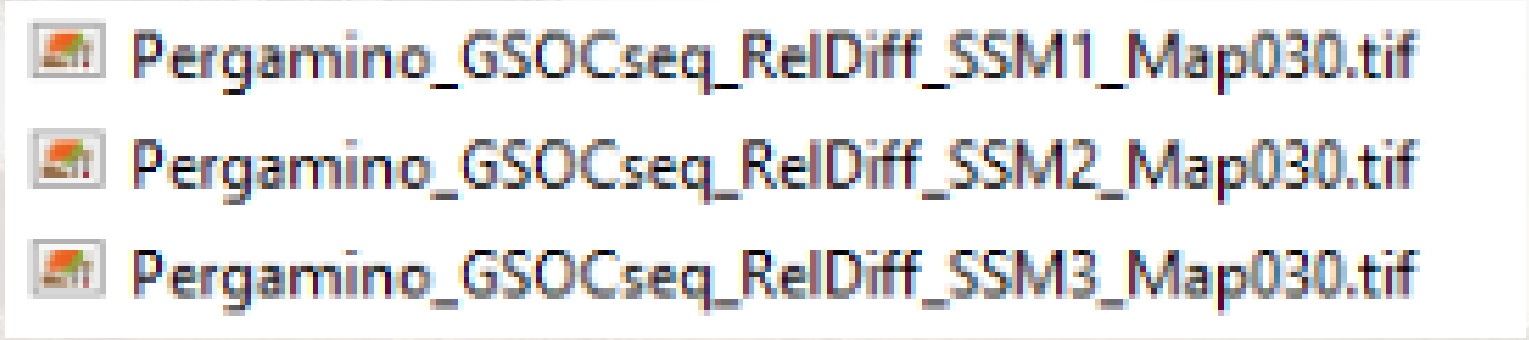
SOC Absolute differences (SSM 1-3 – T0) In tC/ha

- Pergamino_GSOCseq_AbsDiff_BAU_Map030.tif
- Pergamino_GSOCseq_AbsDiff_SSM1_Map030.tif
- Pergamino_GSOCseq_AbsDiff_SSM2_Map030.tif
- Pergamino_GSOCseq_AbsDiff_SSM3_Map030.tif

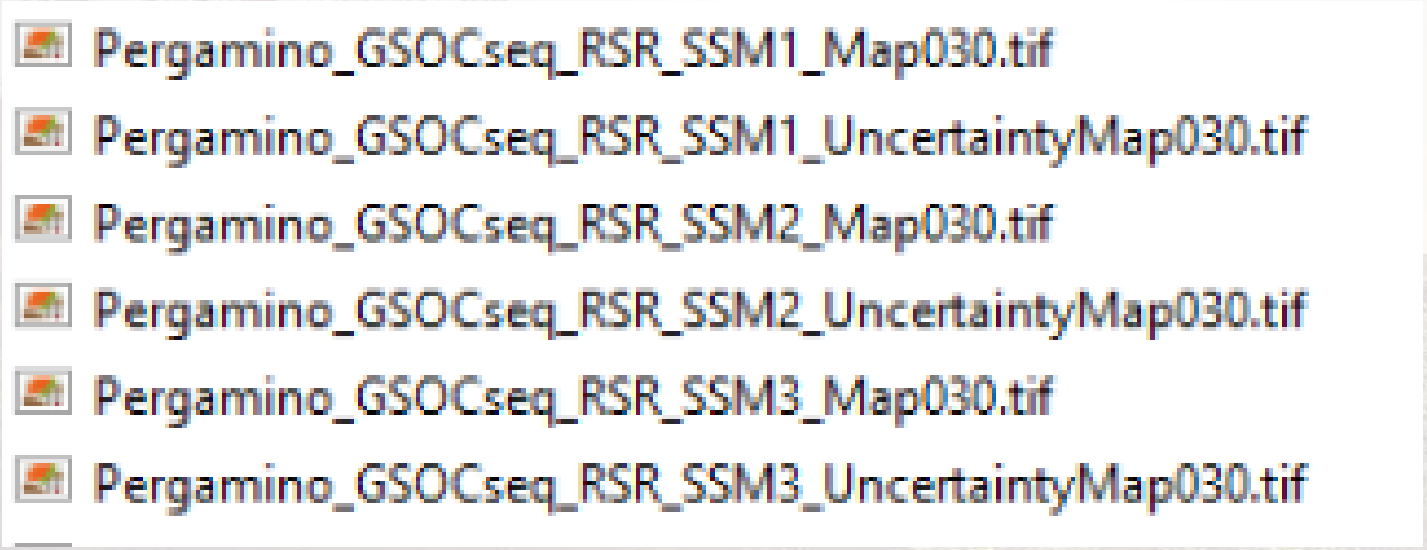
Absolute sequestration rates : Abs. Diff./20 years In tC/ha/year



SOC Relative Differences: (SSM1-3 – BAU) In tC/ha



Relative sequestration rates : Rel. Diff./ 20 years
In tC/ha/year



Thank you!

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